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Information to be used in submitting Application to the Federal Government for Funds, from the Appropriation for the construction of Public Works, with which to build the initial sections of a Rapid Transit System in the City of San Francisco, California -

Submitted April 1938

1. Total loan requested . . . . . \$56,200,000.

2. A schedule showing when funds will be needed and amounts, follows:

Schedule of Funds Required  
(Interest not included)

Initial	\$ 305,000
At end of 2 months	774,000
4	1,224,000
6	774,000
8	5,804,000
10	5,626,000
12	5,048,000
14	5,548,000
16	5,548,000
18	5,538,000
20	5,498,000
22	5,488,000
24	<u>5,303,000</u>
 TOTAL	 53,980,000
Interest	<u>2,220,000</u>
 TOTAL	 <u>\$56,200,000</u>

3. A general description of the project proposed is as follows:

San Francisco is the center of a metropolitan area comprising a population of approximately 1,700,000. In 1931 a report was prepared by the City Engineer proposing certain subway lines costing \$21,700,000. A copy of this report is attached.

Since 1931 two of the largest bridges in the world have been designed and placed under construction to be completed in 1938. The construction of these bridges necessitates prompt action on the part of San Francisco to care for the increased travel into the City and to provide local service within the City which will be as attractive as the quick all rail service to be given to the East Bay Cities of Oakland, Alameda and Berkeley. The Transbay Terminal is proposed to be moved from its present location at the Ferries at the foot of Market Street, to a new location farther up-town and south of Market Street. It is estimated that the initial number of passengers using this station will be 57,000,000 annually.

The local lines must be rerouted to this new location. Both bridges are designed for automobile traffic. At present Market Street, the principal thoroughfare, has four lines of street car tracks and but two automobile lanes; the latter are not sufficient to satisfactorily handle the traffic.

Because of the down-town street pattern all traffic eventually comes into Market Street or crosses it. Streets to the north of Market Street do not meet those south of Market, except at relatively few places. At these crossings the dense Market Street travel is hindered by the heavy cross travel resulting in surface car schedules on Market Street falling below four miles per hour during the rush hours with many delays of from 5 to 15 minutes beyond schedule time.

The construction of the rapid transit lines herein proposed will accomplish the following:

- 1 - Provide quick and convenient service to the East Bay Terminal.
- 2 - Permit the removal of two tracks from Market Street, thereby adding not less than two additional automobile lanes.
- 3 - Avoid all of the present delays at heavily traveled cross streets.
- 4 - Decrease the running time between the financial and down-town retail districts and the residential districts by from 15 to 30 minutes.
- 5 - Provide an important link for an outlet from San Francisco to the Peninsula Cities where the population tributary to San Francisco increased 123 per cent between 1920 and 1930.
- 6 - Hold real estate values in San Francisco stable by preventing decentralization and loss of population.

The map attached shows each of the four projects in a separate color and the location of the bridges under construction.

Initially it is the intention to use street cars in all of the subways except the Mission Street line for which new cars will be necessary. The cost of making changes in the street cars to suit them for higher speed operation in the subways is included in the cost.

San Francisco owns and operates under the direction of its Public Utilities Commission, a system of street railways which annually transports 85 million passengers. Existing municipal lines will be operated in the proposed subways on Market Street and Geary Street and a new Municipal Railway service is proposed for Mission Street and Bernal Cut to the Ocean View District. Each line has been planned with a view to future extensions as necessity demands.

4. The estimated cost of each of the projects proposed is shown on the attached tabulation which also shows the division between overhead and construction costs.

5. The San Francisco Chamber of Commerce, Down Town Association, Retail Credit Association, Real Estate Board, and the residents represented by many improvement clubs and associations, are all deeply interested in the immediate construction of rapid transit lines which will begin operation close to the time of the completion of the bridges. The organized down-town business and financial interests have definitely indicated their willingness to support a program of rapid transit construction. No opposition to the project has appeared in any quarter, as everyone feels the necessity for relief from traffic congestion and slow travel to the residential sections of the City.

6. An appropriation was made to the Public Utilities Commission in December 1934, with which to study and report on the initial rapid transit requirements and the rearrangement of service to the bridges and the peninsula towns. The cost estimates submitted herewith have already been prepared and the major fundamentals of construction worked out. Many proposals have been examined, time and traffic studies prepared and the recommended lines tentatively selected. Negotiations are under way for the review of the project by an engineer of national reputation. Plans and specifications for portions of the work can be issued within ninety days after the receipt of funds.

7. It is preliminarily estimated that 4,700,000 man days will be required in the prosecution of the work, providing employment for 8,000 men on construction.

8. The materials required for the projects are practically all of the heavier basic types. The following is an estimate of some of the requirements:

Cement	250,000 barrels
Crushed rock	250,000 cu.yds.
Structural and reinforcing steel	40,000 tons
Rails	4,000 tons
Ties	60,000 pcs.
Lumber	40,000 M feet
Cars	35
Car barns and shops	2
Copper wire and cables	100 tons

**PRELIMINARY ESTIMATE OF COST OF INITIAL RAPID TRANSIT SYSTEM IN SAN FRANCISCO**

APRIL 1935

Prop- erty Line- arity	Lands and Road V.	CONSTRUCTION COSTS	Engineering	Legal and Adminis- tration	Interest during Con- struction	Grand Total				
1-MARIN STREET SUBWAY from the TRAINING TERMINAL to just west of Church St. with a ramp to the surface 2-1/4 mi. of double track, six stations	\$100,000	\$100,000	\$ 9,000,000	\$ 5,050,000	\$17,050,000	\$1,100,000	\$100,000	\$ 750,000	\$19,200,000	
MISSION STREET SUBWAY from Market St. subway at Van Ness Ave. via Mission St. to Bu- dall St. 2-1/2 mi. of double track, six stations, cars and car storage	100,000	350,000	5,550,000	7,750,000	16,650,000	1,100,000	100,000	750,000	19,000,000	
2-MARY STREET SUBWAY from Hamilton Square east on Geary St. to Market St.; on Market St. to Montgomery St.; on Mont- gomery St. to Columbus Ave. with a ramp to the surface and a loop on the surface 2-1/2 mi. of double track, five stations	60,000	—	7,550,000	6,710,000	16,300,000	900,000	60,000	640,000	16,900,000	
BERNAL GUT SURFACE LINE from a connection with the Mission St. subway through the Bernal Gut to Monterey Blvd., thence over S.P. R/W to Ocean View, 3 mi. of double track on private R/W and 10 cars	20,000	500,000	720,000	550,000	1,370,000	50,000	40,000	50,000	2,000,000	
<b>Total</b>		<b>\$300,000</b>	<b>\$950,000</b>	<b>\$26,160,000</b>	<b>\$23,100,000</b>	<b>\$49,250,000</b>	<b>\$3,150,000</b>	<b>\$320,000</b>	<b>\$2,220,000</b>	<b>\$56,200,000</b>

cannot be original containers and will  
be steel covered with multiplexed fiber  
insulation has added framework than  
standard plan to accommodate equipment  
to be installed will be built out of steel  
covered containers has required most mod-  
ern to serve a degree of reliability  
because the project has no time  
allowance and failure not withstand out  
with out to another installation

out of other can withstand out  
project has parts of some size still not  
out to accommodate will have supporting  
beam insulation 3000 sq ft. added also  
the equipment room has been  
out with insulation and avoid damage  
because vibration will become  
part of building and to allow out  
out to another not available but  
short to easier out with and

each terminals vibration of  
platform, floor and is sufficient out of  
insulation

out with insulation  
not  
out with and serve  
other

Source

John Gardner  
Engineering Co.  
S. L. C.  
and  
Technical  
etc.

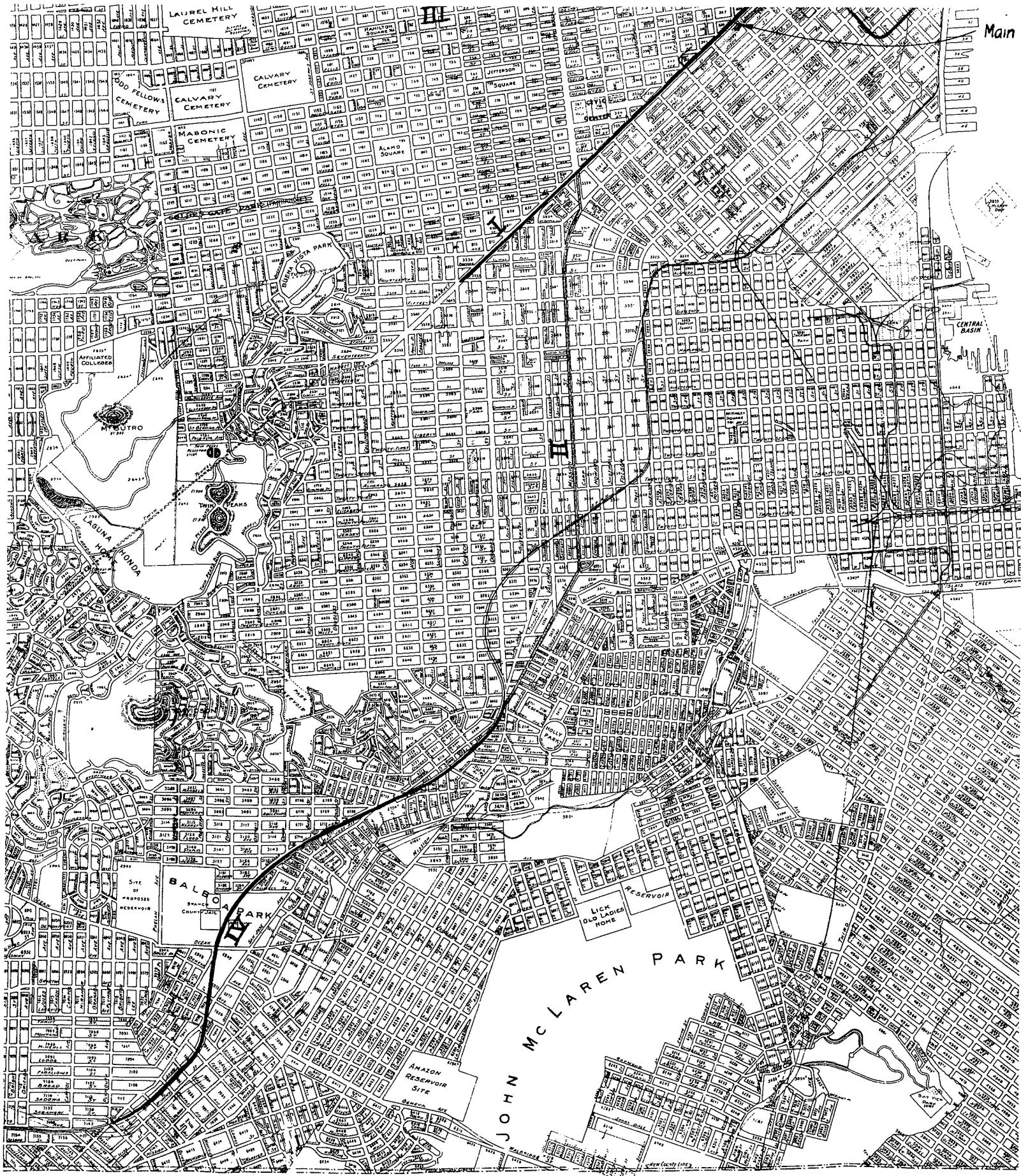
none has acted yet  
addition has extra support

## Main Retail District

# F R A N C I S C O

1





P A C I F I C O C E A N



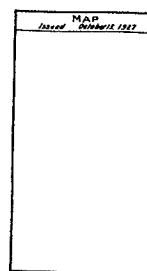
Rapid Transit. 4/8/35.

MAP  
OF THE  
City and County of  
**SAN FRANCISCO**  
PREPARED BY THE  
BOARD OF PUBLIC WORKS.

M. M. O'SHAUGHNESSY  
CITY ENGINEER

1927

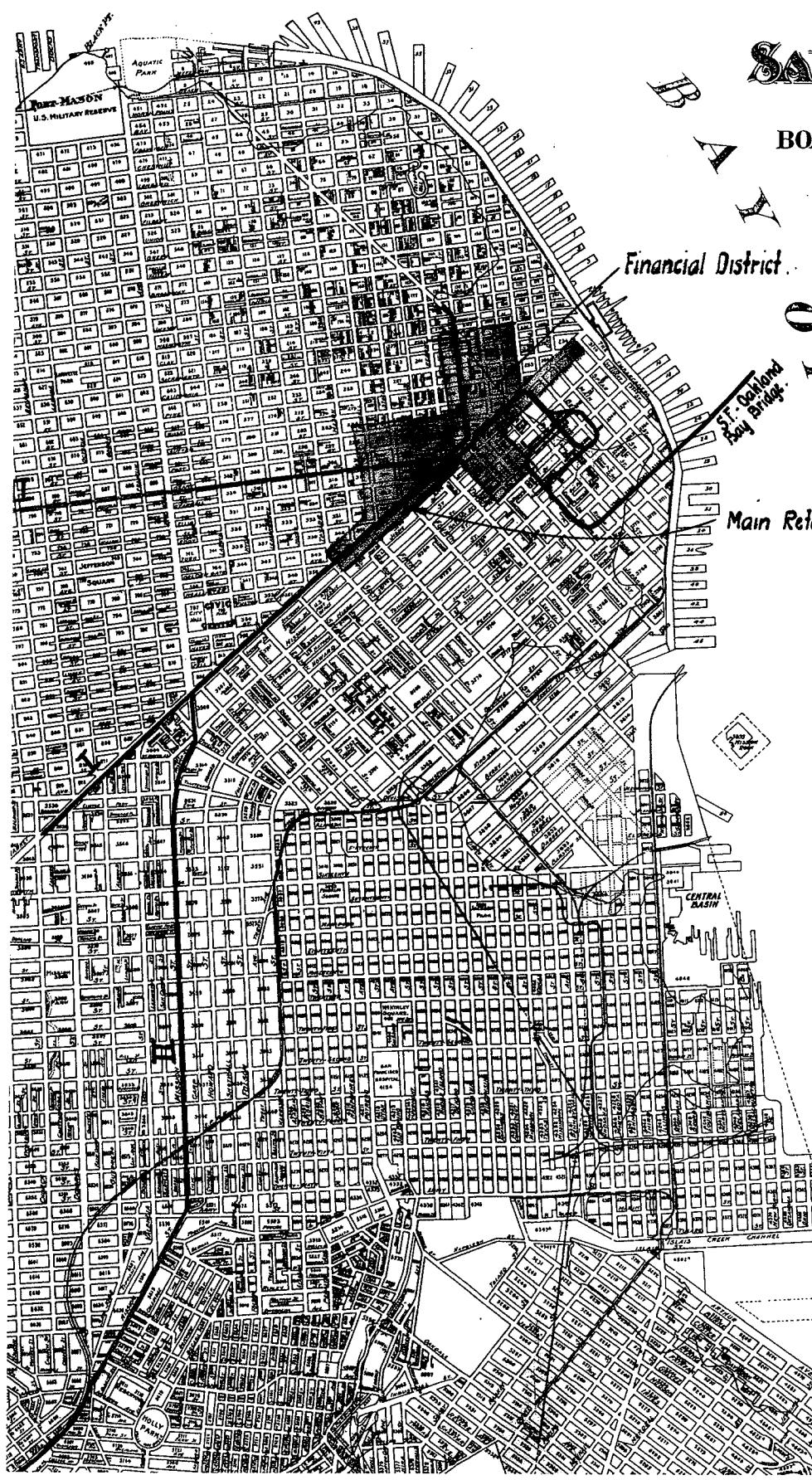
SCALE OF FEET  
ALL DRAWINGS,  
CARTOGRAPHIC



Main Retail District.

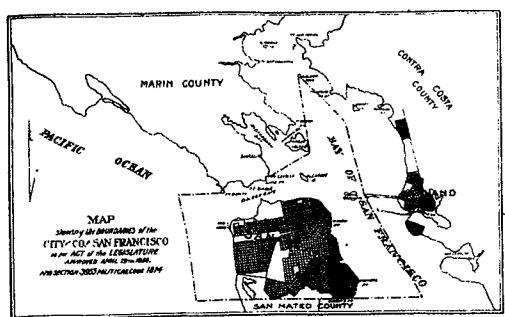
S A N

F R A N C I S C O

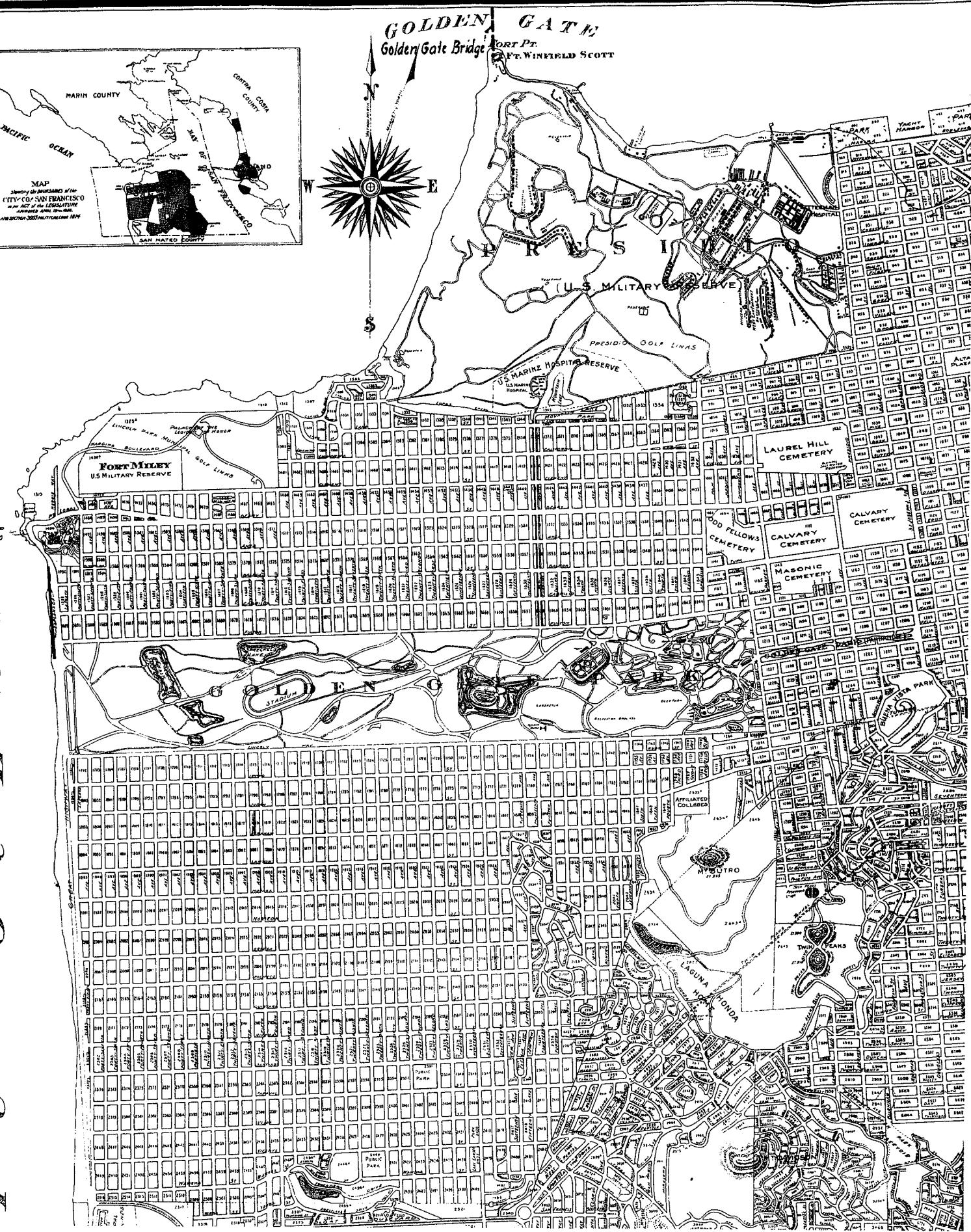
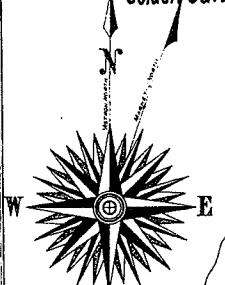




OCEAN CITY



GOLDEN GATE  
Golden Gate Bridge  
PORT PT.  
FORT WINFIELD SCOTT



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REF  
388.4097  
Sa528